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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/846,451 | 04/30/2001 | Ming Duong-van | 3397P006 | 4450 |
| 8791 | 7590 | 03/20/2006 | EXAMINER | |
| BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030 | | | HOM, SHICK C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2666 | |

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,451

Applicant(s)

DUONG-VAN ET AL.

Examiner

Shick C. Hom

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/2/06 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2 and 5-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 10-11 are objected to because of the following informalities: In claim 10 line 1, which recite "An apparatus of claim 7" seems to refer to "The apparatus of claim 9." If this is true, it is suggested changing "An apparatus of claim 7" to --- The apparatus of claim 9---. In claim 11 line 1, which

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recite "An apparatus of claim 8" seems to refer to "The apparatus of claim 10." If this is true, it is suggested changing "An apparatus of claim 8" to --- The apparatus of claim 10---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1, 2, 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 lines 7-8, which recite scanning the bandwidths until the network performance metrics is/are optimized is not clear as to how scanning the bandwidths that the network performance metrics is/are optimized or become optimized as claimed. Claim 1 lines 8-9 which recite "the control node is operated at" is not clear as to whether it is reciting --- operating the control node at---; further claim 1 line 9, claim 6 line 6 which recite "the best observed resonance point" lacks clear antecedent basis because no best observed resonance point have been previously recited in the claims and therefore the limitation is not clearly understood. Claims 2, 5, and 7-8 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claims 1 and 6, respectively.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2 and 5-11 rejected under 35 U.S.C. 102(e) as being anticipated by Loguinov et al. (2002/0169880).

Regarding claims 1, 6, and 9-11:

Loguinov et al. disclose a method and apparatus to control congestion in a communication network, wherein the apparatus comprises; a control node, wherein the control node is located in a communication link between at least one server and at least one client; and a control point, wherein the control point is located nearby or in the control node as in claim 9; wherein the control point comprises means to determine a plurality of resonance points of network performance metrics by scanning

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across a range of bandwidths until one or more of the network performance metrics is/are optimized as in claim 10; and wherein the control point comprises means to determine a plurality of resonance points of network performance metrics by scanning across a range of bandwidths until one or more of the network performance metrics is/are optimized as in claims 1, 6, 11 (see the abstract and paragraph 0010 which recite the method and device for estimating bottleneck bandwidth over a communication network including the step of calculating a set of bandwidth samples between the server, through the bottleneck link, and the client and determining a new bandwidth from the calculated bandwidth samples for the following transmission of data packets between the server and the client; and paragraph 0032 which recite the estimates being used for congestion control between the server system and the client system clearly anticipate the control point located in the communication link between the server and the client for determining network performance metrics across a range of bandwidths. Further, paragraph 0030 which recite the bottleneck router between the server and client clearly anticipate the control node; paragraph 0033 and claim 1 which recite mechanism being used to achieve performance improvements and the step of determining the best bandwidth for the following transmission of data packets from the server to

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the client clearly anticipate optimizing the network performance metrics as claimed).

Regarding claims 2, 7:

Loguinov et al. disclose wherein the network performance metrics comprise one or more of throughput, average fetch time and packet loss (see paragraphs 0024-0025 which recite determining the packet loss at the client system, the rate the packets leave the server, and the transmission speed of the link clearly anticipate the network performance metrics comprise one or more of throughput, average fetch time and packet loss).

Regarding claims 5, 8:

Loguinov et al. disclose wherein the packet bandwidth is set by varying an inter-packet delay time over selected communication links at the control node (see the abstract and paragraphs 0008, 0011, and 0030 which recite generating and using different inter-packet spacing for determining the bandwidth).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Jorgensen discloses a transmission control protocol/internet protocol (TCP/IP) packet-centric wireless point to multi-point (PTMP) transmission system architecture.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SH

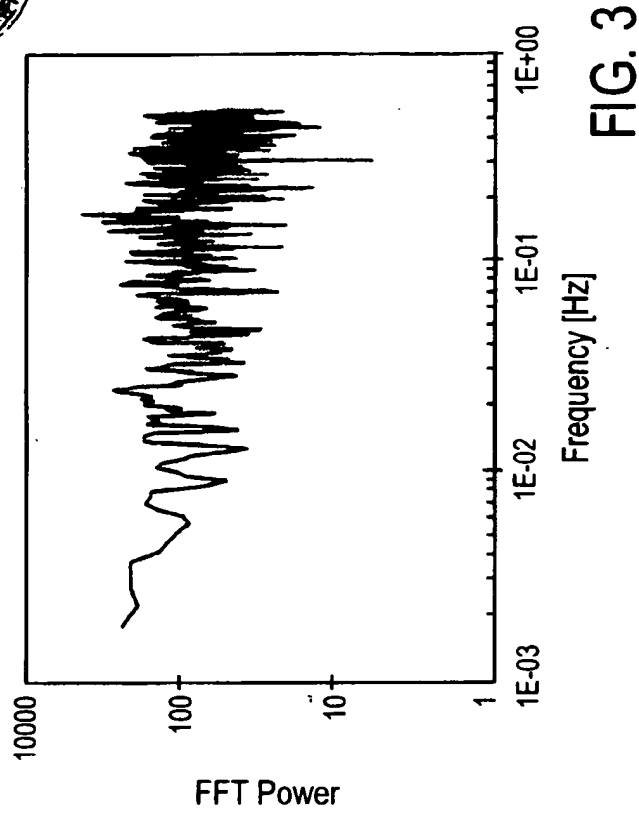
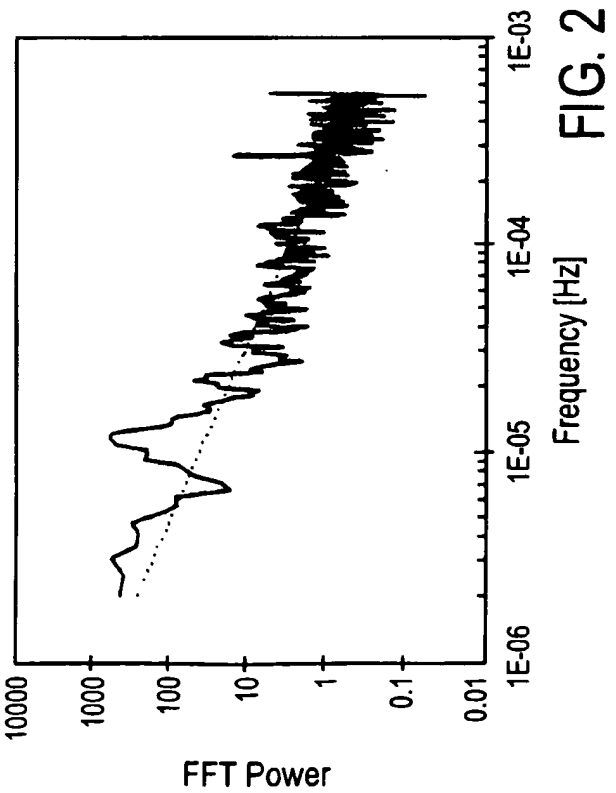
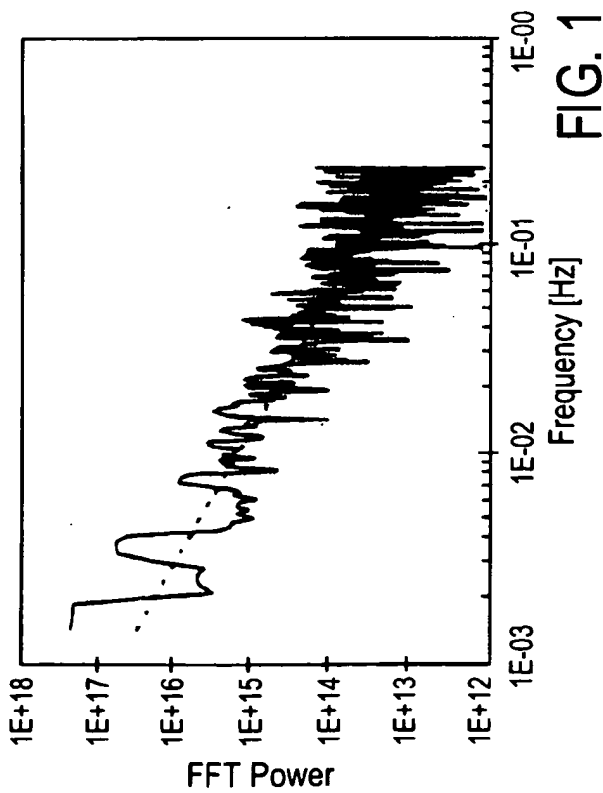
A handwritten signature in black ink, appearing to read "Ton Dang", with a long horizontal flourish extending to the right.

DANG TON
PRIMARY EXAMINER



Replacement Sheet

SH.
OK.





Replacement Sheet

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O.K.

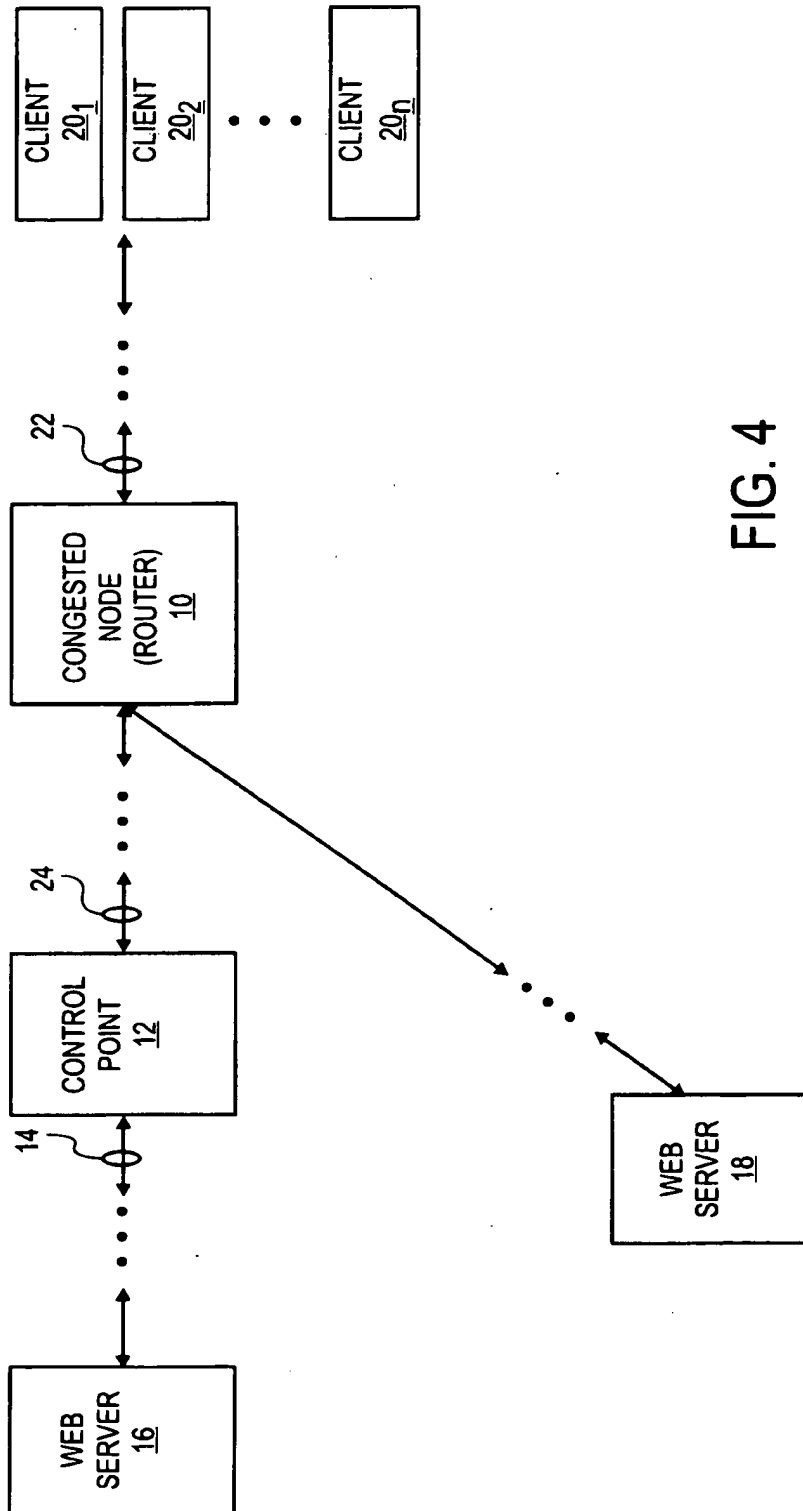
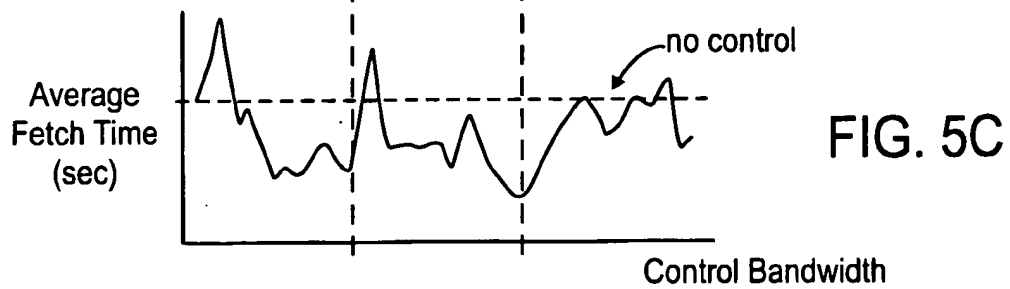
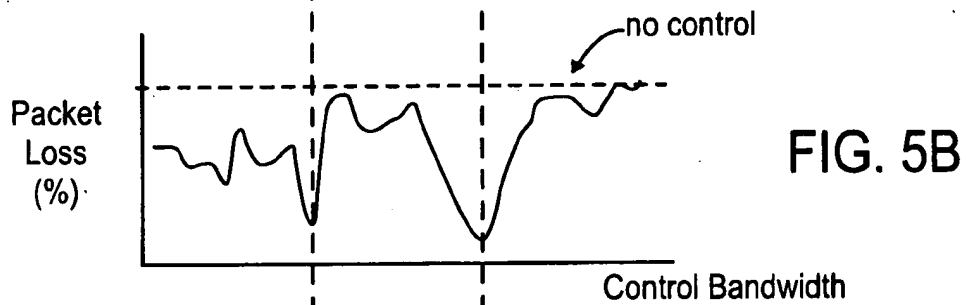
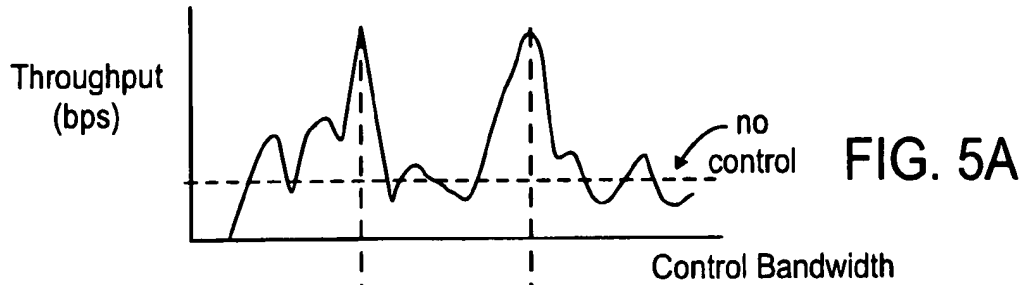


FIG. 4



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